Cut the Cord: Connecting to Our Mobile Users

Participant's Manual

MLA Webcast
Wednesday, November 18, 2009
1:00 p.m.–3:00 p.m., central standard time

MEDICAL LIBRARY ASSOCIATION
Quality information for improved health
www.mlanet.org

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Agenda

The goal of this webcast is to familiarize information professionals with current and emerging mobile technologies, innovative initiatives using mobile devices, useful mobile software applications, and funding options for projects using mobile devices.

Objectives

- describe mobile technology and its value for librarians and health care professionals
- demonstrate mobile technology devices and innovative applications
- explore programs that illustrate the potential of mobile technology for health professionals
- discuss funding opportunities to create and sustain mobile technology programs

Program Agenda

12:30 p.m., central time

- Webcast signal test and optional wraparound session #1

1:00 p.m.-3:00 p.m., central time

- *"Cut the Cord: Connecting to our Mobile Users"*

Part I: Mobile Technology: A Short History

Part II: Mobile Devices and Innovative Technology

- Iphones - medical and health information applications
- Netbooks and Kindles - ebooks
- updated applications for the novice user
- innovative applications
- question & answer session

Part III: What's Hot Now! What's Next!

- using Kindles for family medicine
- direct patient care - patient managed medical records
- integrating point of care resources into a mobile platform
- what it would take to push the envelope
- PubMed for handhelds
- question & answer session

Part IV: Value and Specific Outcomes for the Library and the Librarian

- ROI
- getting beyond saying "hey we are hip"
- case studies

Part V: Funding Opportunities

- RMLs
- partnering with people in your institution and health departments
- levels of funding
- question and answer session

Conclusion

3:00 p.m.-4:00 p.m., central time

- Optional wraparound session #2

Speakers

Max Anderson, Technology Coordinator, National Network of Libraries of Medicine, Greater Midwest Region (NN/LM GMR), University of Illinois–Chicago

Emily Hurst, Instructional Services Librarian, University of Texas Health Science Center–San Antonio

Bart Ragon, Associate Director, library technology services and development, Claude Moore Health Sciences Library, University of Virginia–Charlottesville

David Rothman, Manager, Medical Library, Community General Hospital, Syracuse, NY

Videotaped presenters

Renée Bougard, Outreach Librarian, National Network of Libraries of Medicine, National Network Office, National Library of Medicine, Bethesda, MD

Brian Briggman, System Architect, National Library of Medicine, Bethesda, MD

Paul Fontelo, Staff Scientist Research Physician, Office of High Performance Computing and Communications, Lister Hill National Center for Biomedical Communication, National Library of Medicine, Bethesda, MD

Loren Frant, Head, health information products unit, National Library of Medicine, Bethesda, MD

Eric Schnell, Associate Professor and Emerging Technology and Services Specialist, Prior Health Sciences Library, Ohio State University–Columbus

Megan von Isenburg, Associate Director, Information Services, Medical Center Library, Duke University, Durham, NC

Question and Answer Periods

There will be two opportunities during the program to telephone, fax, or email in your questions for the speakers to answer. The speakers will try to answer all questions that are sent into the program.

Please include <u>your name and essential contact information</u> with each faxed, telephoned, or emailed question. If time does not allow the speakers to address all questions, then the speakers will answer them personally at a later date. Providing your address, email address, or telephone number will allow one of the speakers to reply to your unanswered question.

Name: _____

Address:_____

Telephone number: _____

Email address: _____

Question(s):

Q&A phone: 800.281.4424
Fax: 630.942.2788
Email: uplink@cod.edu

Email Discussion List Directions

Medical Library Association Email Discussion List Information

The email discussion list was created for *"Cut the Cord: Connecting to our Mobile Users"* program. MLA plans to use this list to communicate new developments, Webcast information, and other program issues with the site coordinator and individual participants. This list should serve as a vehicle to exchange ideas, solve problems, ask questions, and get information. Participation is optional. The best part is that it is easy to use.

To subscribe to the *MLA-MOBILE* Email Discussion List

1. Go to the link, http://ns1.mlahq.org/mailman/listinfo/mla-mobile
2. Fill in the form including your email address and a password. Press "Subscribe."
3. You will be sent an email requesting confirmation.

To Send Messages on the *MLA- MOBILE* Email Discussion List

1. Send your email messages to the address: mla-mobile@mlahq.org (only subscribers may send messages to the list.) **Do not send commands to this address.**
2. Type your message.
3. Make sure to include a subject in the subject line.
4. Always sign your messages.
5. Send it to others on the list.

MLA Headquarters' Staff Are Glad to Help

If you have questions or need help, contact MLA's Internet Systems Administrator at MLA headquarters:

Email: mlafa1@mlahq.org Fax: 312.419.8950 Voice: 312.419.9094 x20

Part I: Mobile Technology: A Short History (Max Anderson)

Pioneers of Mobile Technology

- 1896-1897 - Marconi invented the telegraph system that bears his name
- 1901 – first trans-Atlantic messages by Marconi
- 1907 – first official messages transmitted

Pioneers of Mobile Technology

- 1940's Bell Labs propose the idea of cell towers and cell systems
- Post WWII – "Landmobile" – police, firefighters, taxis, etc.
- AT&T develops first mobile telephony service in 1946 in St. Louis
- Ericsson develops first fully automatic mobile phone system in 1956
- Soviets create the first true mobile phone in 1957

Pioneers of Mobile Technology

- 1971 AT&T, RCA and Motorola file proposals to use 800 MHz band for cellular systems
- 1971 AT&T, RCA and Motorola file proposals to use 800 MHz band for cellular systems
- 1983 Ameritech launched first commercial cellular system in Chicago

First Generation

- First call of the modern cell phone era made on April 3, 1973 with a prototype of the Motorola DynaTAC 8000X
  - Released 1983

Second Generation

- Introduced in the early 1990's
- SMS
- Media content available on mobile phones
- Downloadable ringtones
- Built mainly for voice services and slow data transmission

Third Generation

- Japanese company DoCoMo launches the first 3G network in 2001
- By the end of 2001, there were 295 million subscribers on 3G networks worldwide
- 3G supports live streaming of radio and television

Fourth Generation

- Currently under development
- Much higher rates of transmission possible
- Possible uses: Streaming high-definition television, high-speed data transmission

HTC Max 4g
- First GSM/WiMax Smartphone

Handhelds – The Early Years

Devices

- 1984 – Psion, Casio
- 1993 – Apple Newton
- 1996 – Palm
- 1996 – Windows CE
- 1999 – RIM Blackberry
- 2001 – Pocket PC
- 2003 – Windows Mobile

Operating Systems

- Palm OS
  - Pilot | Palms |Tungsten | Palm Pre
  - Handspring Visor
  - Sony Clie
- Windows CE | Pocket PC
  - Compaq iPaq
  - HP iPaq
  - Dell Axim
- Windows Mobile
  - Palm Treo
  - Spring, Verizon, AT&T, T Mobile
- Rim Blackberry

Handhelds – The Modern Era

- Apple introduces the iPhone in 2007
- Blackberry Storm released in 2009
- Palm Pre
- Google Android – T-Mobile G1
- Dell Streak will be released in January 2010

Dell Streak

Wireless Technology

- Dates back to 1880's – first detection of radio waves by Heinrich Hertz
- 1906 – Reginald Fessenden broadcasts his voice over the North Atlantic using AM radio waves
- 1919 – Radio Corporation of America incorporated by General Electric (GE)

Wireless Technology

- Shortwave radio developed in 1921 and FM developed in 1931
- 1972 Ethernet created
- 1997 – IEEE 802.11 standard created (aka Wi-Fi)
- 1999 – IEEE 802.11b added to the standard, increasing transmission rates
- 1999 – Bluetooth 1.0 specification released
- 2001 – IEEE 802.16 standard (WiMax) created
- 2009 – IEEE 802.11n standard ratified

Laptops

- Laptops first designed in late 1970's/early 1980's
- 1981 - Osborne 1 (looked much like a sewing case when closed)
- 1983 – Gavilan Mobile Computer

Laptops

- Mid-1980's
  - Radio Shack releases TRS-80
  - IBM releases 5155 Portable Personal Computer
  - Compaq releases SLT/286 (below)

Laptops

- 1989 – Apple releases Macintosh Portable
- 1990's faster sleeker machines with much more storage and connections and improved displays

Laptops – The Modern Era

- MacBook Pro, Air
- Sony Vaio
- Etc…

- Faster processors
- Terabyte hard drives
- Gigabytes of memory

Other Portable Devices

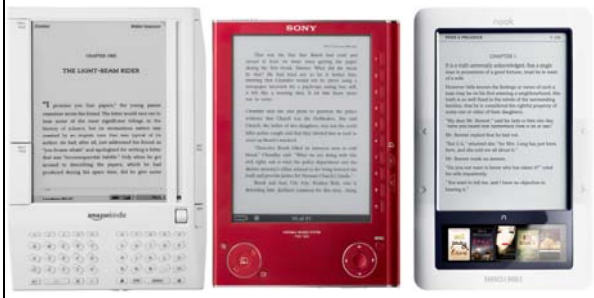
- Early ebook readers like the 1990's Gemstar Rocket and Franklin…to today's Kindles and Nooks

Part II: Mobile Devices and Innovative Technology (David Rothman & Emily Hurst)

What is a Netbook?

- Small
- Light
- Inexpensive
- Low Power
- May be free with service contract from network provider (like mobile phone)
- May not be meaningful term much longer

What is an e-Reader?



E-readers

- Innovations and enhancements
  - Electronic paper from E-Ink®
  - Low power consumption
  - More realistic “feeling” text
  - Reduced eye strain
  - Smaller devices, streamlined technology
  - Larger screens, better viewing

E-readers
The BIG Two (and a half)

- Amazon Kindle ™
  - First introduced 2007
  - Newest version more streamlined
  - Ability to store images, audio files and PDFs
  - Wireless connectivity via “Whispernet”
  - Some things to consider

  - No full color images
  - Text-to-Speech copyright issues
  - “Experimental” Web browser
  - Sharing your Kindle™ library means sharing your account log in or your Kindle™ (physically)

E-readers
The BIG Two (and a h

- Sony® Reader
  - Several versions
  - Touch screen enabled
  - Some wireless functionality
  - Partnership with OverDrive® provides access to e-books from participating libraries
  - Purchase and download titles through Sony Connect store (online)

E-readers
The BIG Two (and a half)

- Barnes and Noble’s Nook™
  - Coming mid November 2009
  - Access to downloadable Barnes & Noble collection
  - Connectivity via AT&T 3G or WiFi
  - Android OS
  - Expandable memory with MicroSD cards
  - LendMe option
    - Limited sharing
    - Lend one book, one time to one person for 14 days
  - Dual screens
    - Reading screen
    - LCD color touch screen for navigation

iPhone, iPod Touch, Android Phones

- iPhone
  - Mobile phone/palmtop computer that runs a version of Apple's OSX.
- iPod Touch
  - iPhone without phone or 3G connectivity
- Android phones
  - Android OS by Google
  - Includes the G1, MyTouch, Droid

iPhone, iPod Touch, Android Phones

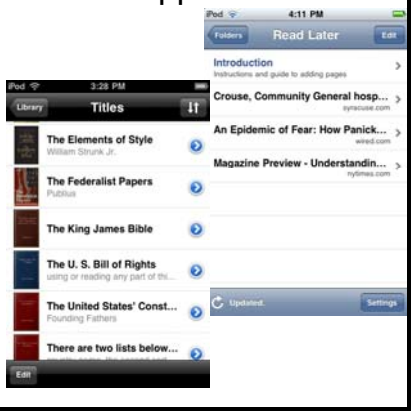
iPhone, iPod Touch, Android Phones

- Great interfaces
- Real Browsers
- App development

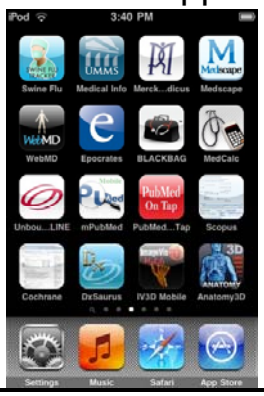
  …but the Android app market is way behind Apple's App Store.

My iPod Touch: Apps I Love

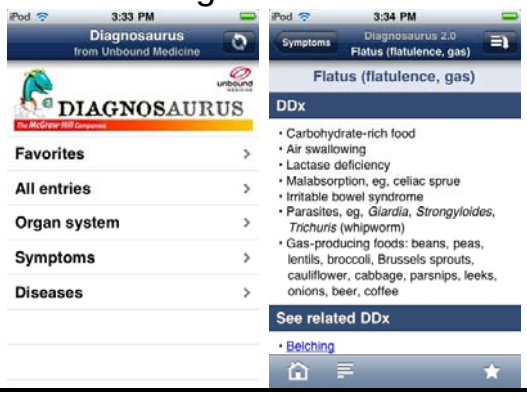
- InstaPaper
- Stanza eBook Reader
- Dropbox
- Evernote
- FileAid
- NetNewsWire



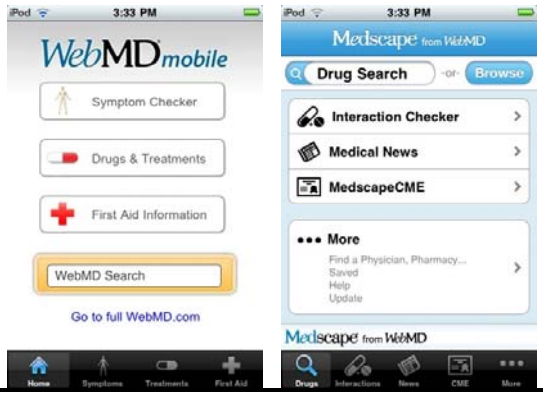
Medical Apps



Diagnosaurus



WebMD



Part II Continued: Netbooks (Eric Schnell)

The Osborne

http://upload.wikimedia.org/wikipedia/commons/f/f4/Osborne01.jpg

An inter**NET** note**BOOK**

Netbook Purchasing Considerations

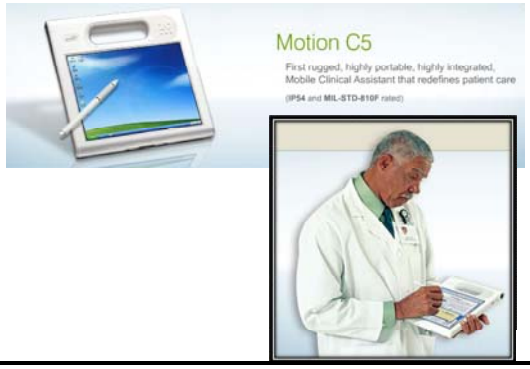
- Display size - ~ 10 in
- Wireless compatibility – security protocols
- Battery life – upwards of 7 hours
  - No internal CD / DVD player
- Keyboard size
- Price - ~ $300
- Form factor – ~ 3 lbs

Part III: What's Hot Now! What's Next! (Bart Ragon)

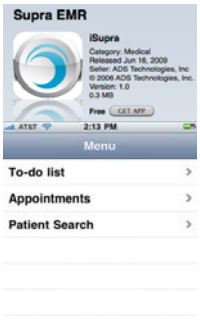
Integrating Point of Care Resources into the Mobile Platform

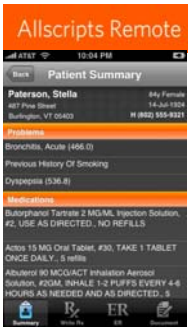
- Electronic Medical Record
- Personal Health Record
- Patient Trackers

Electronic Medical Record



Electronic Medical Record





Electronic Medical Record

Vendors . . . anyone mobile?

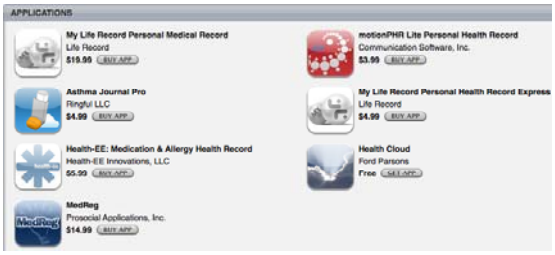
- Cerner
- Eclipsys
- Epic
- GE Centricity
- Siemens Medical

Electronic Medical Record

Desktop Virtualization

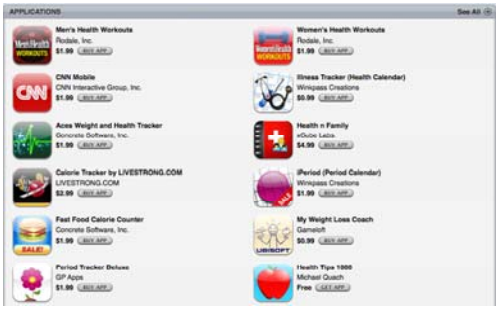
Electronic Medical Record

Personal Health Record



Patient Trackers

There's an App for that . . .



Patient Trackers

Diabetes

Blood Pressure

Weight

Fitness

New Patient Trackers

Amazon Kindle

Consider this . . .

Kindles for checkout based on discipline

Sony Reader

Your device or mine . . .

Sony Reader collections

Barnes and Nobel Nook

Finding your Nook. . .

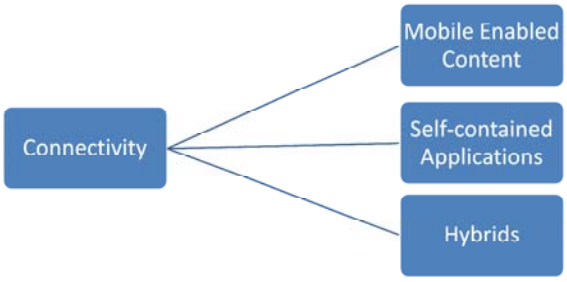
Google Android Phone – Google Android eBook – Google Android Desktop?

Designing Mobile Websites

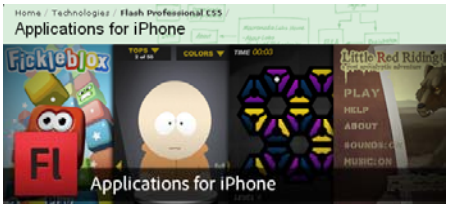
Designing Mobile Applications

There could be an App for that

Do connections matter?

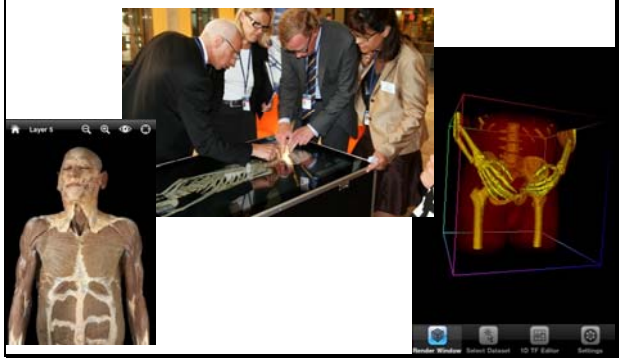


An App for every library?



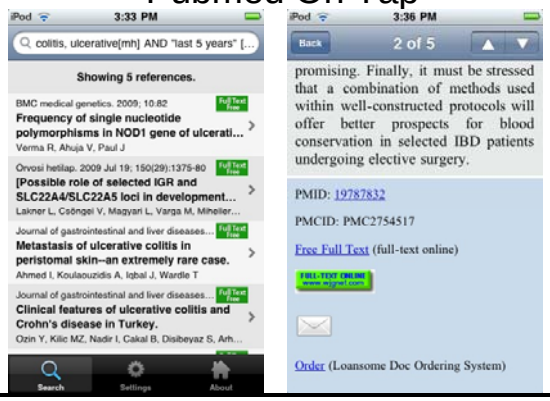
Augmented Reality

Surface Computing

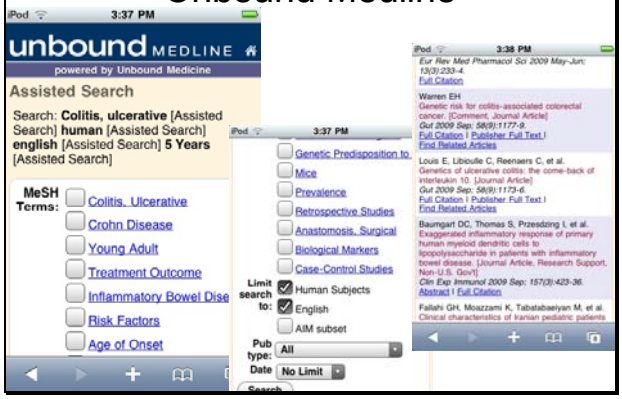


Part III Continued: PubMed for Handhelds (David Rothman)

Pubmed On Tap



Unbound Medline



PubGet Mobile

Pubget is like Pubmed, except you get PDFs **right away**:

Open access only search: nik gene cluster access:open

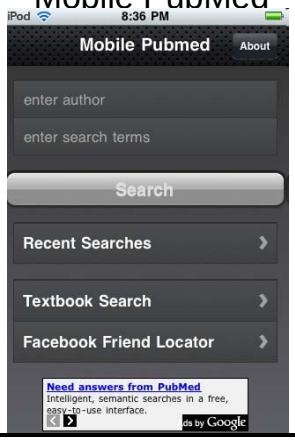
Title and abstract: tiab:centrality tiab:hub tiab:network

Latest issue: plos biol[latest], PNAS[latest], Nature[latest]

Authors: au:"carroll sb" (au:rokas OR au:gompel) NOT au:kassner

PubMed for Handhelds

Mobile PubMed



Part III Continued: PubMed for Handhelds (Paul Fontelo)

PubMed for Handhelds
http://pubmedhh.nlm.nih.gov

http://tinyurl.com/pubmedhh
http://snipurl.com/pubmedhh
http://ow.ly/8NOe

"Making evidence quickly available to clinicians on a busy medical inpatient service using an evidence cart increased the extent to which evidence was sought and incorporated into patient care decisions."

Sackett DL, Straus SE. Finding and applying evidence during clinical rounds: the "evidence cart". JAMA. 1998 Oct 21;280(15):1336-8.

Why mobile phones?

- 4 billion connections (6 billion by 2013)*
  (UN goal in 2000 - 50% by 2015)
- In 2006, 80% live within MP range

*GSMA Press release February 2009

GSM phone

+

SIM card

= You've got a phone!

Charges apply only for making calls or sending SMS text messages.
No contracts.

Digital Divide?

- "…the answer to that question turns out to be remarkably clear: promoting the spread of mobile phones."
- "impact is twice as big in developing nations as in developed ones"

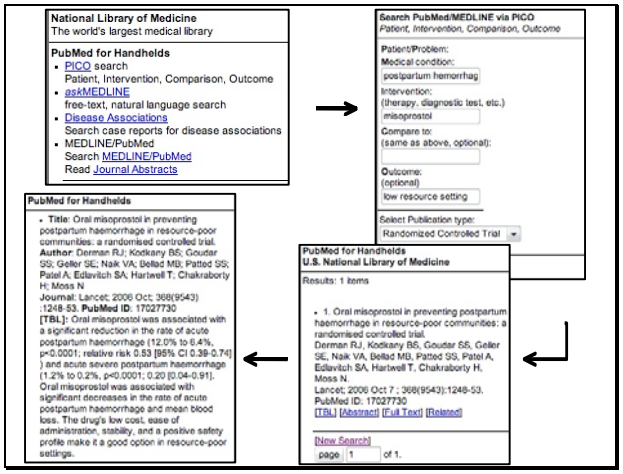
Economist, 3/10/05

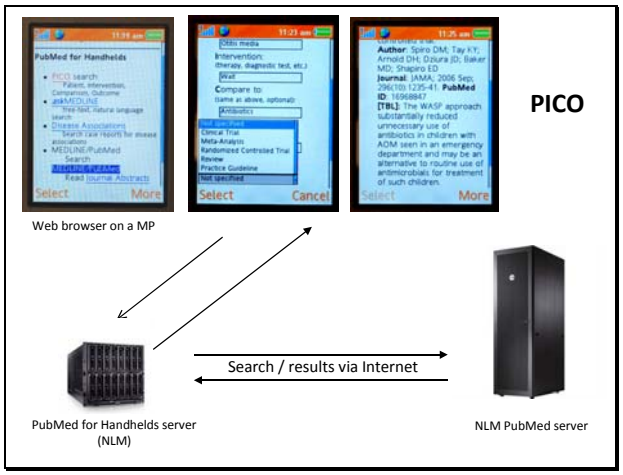
Why Mobiles? USA

- 64% of US physicians use smart phones
- More than 88% use PDAs at least 4x per day,15% more than 25x per day
- 89% say Internet is essential to practice (Korea 88%, Australia 87%, Europe 81%)

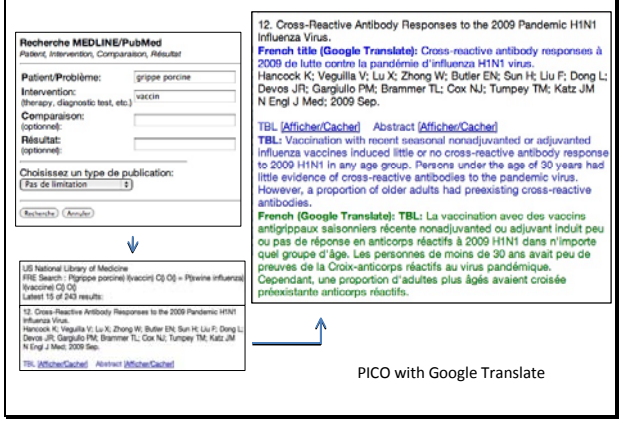
*Manhattan Research, "Taking the Pulse v9.0"

AT&T
3:53 PM
National Library of Medicine
pubmedhh.nlm.nih.gov...
Google
National Library of Medicine
The world's largest medical library
PubMed for Handhelds
PICO search
Patient, Intervention, Comparison, Outcome
ask4MEDLINE
free-text, natural language search
MEDLINE/PubMed
Search MEDLINE/PubMed
Read Journal Abstracts
Disease Associations
Search case reports for disease associations
Feedback
Disclaimer
AT&T
3:54 PM
National Library of Medicine
pubmedhh.nlm.nih.gov/nlmd/
Google
National Library of Medicine
The world's largest medical library
PubMed for Handhelds
PICO search
Patient, Intervention, Comparison, Outcome
ask4MEDLINE
free-text, natural language search
MEDLINE/PubMed
Search MEDLINE/PubMed
Read Journal Abstracts
Disease Associations
Search case reports for disease associations

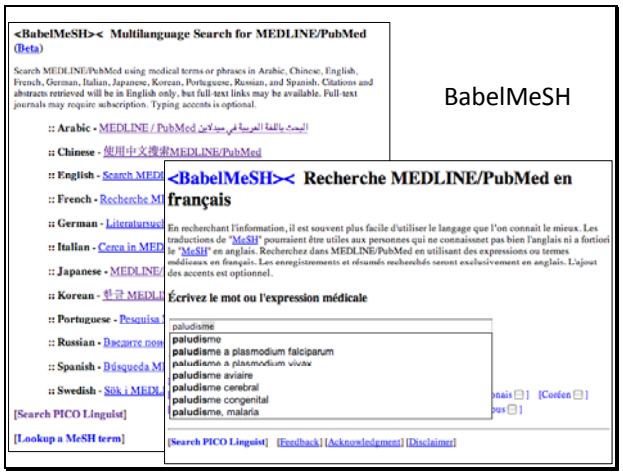

National Library of Medicine
The world's largest medical library
PubMed for Handhelds
PICO search
Patient, Intervention, Comparison, Outcome
ask4MEDLINE
free-text, natural language search
Disease Associations
Search case reports for disease associations
MEDLINE/PubMed
Search MEDLINE/PubMed
Read Journal Abstracts
Search PubMed/MEDLINE via PICO
Patient, Intervention, Comparison, Outcome
Patient/Problem:
Medical condition:
postpartum hemorrhag
Intervention:
(therapy, diagnostic test, etc.)
misoprostol
Compare to:
(same as above, optional):
Outcome:
(optional)
low resource setting
Select Publication type:
Randomized Controlled Trial
PubMed for Handhelds
U.S. National Library of Medicine
Results: 1 items
1. Oral misoprostol in preventing postpartum haemorrhage in resource-poor communities: a randomised controlled trial.
Derman RJ, Kodkany BS, Goudar SS, Geller SE, Naik VA, Bellad MB, Patted SS, Patel A, Edlavitch SA, Hartwell T, Chakraborty H, Moss N.
Lancet. 2006 Oct 7; 368(9543):1248-53.
PubMed ID: 17027730
[TBL] [Abstract] [Full Text] [Related]
[New Search]
page 1 of 1.
PubMed for Handhelds
Title: Oral misoprostol in preventing postpartum haemorrhage in resource-poor communities: a randomised controlled trial.
Author: Derman RJ; Kodkany BS; Goudar SS; Geller SE; Naik VA; Bellad MB; Patted SS; Patel A; Edlavitch SA; Hartwell T; Chakraborty H; Moss N
Journal: Lancet; 2006 Oct; 368(9543) :1248-53. PubMed ID: 17027730
[TBL]: Oral misoprostol was associated with a significant reduction in the rate of acute postpartum haemorrhage (12.0% to 6.4%, p=0.0001; relative risk 0.53 [95% CI 0.39-0.74]) and acute severe postpartum haemorrhage (1.2% to 0.2%, p=0.0001; 0.20 [0.04-0.91]. Oral misoprostol was associated with significant decreases in the rate of acute postpartum haemorrhage and mean blood loss. The drug's low cost, ease of administration, stability, and a positive safety profile make it a good option in resource-poor settings.


PICO
Web browser on a MP
Search / results via Internet
PubMed for Handhelds server (NLM)
NLM PubMed server

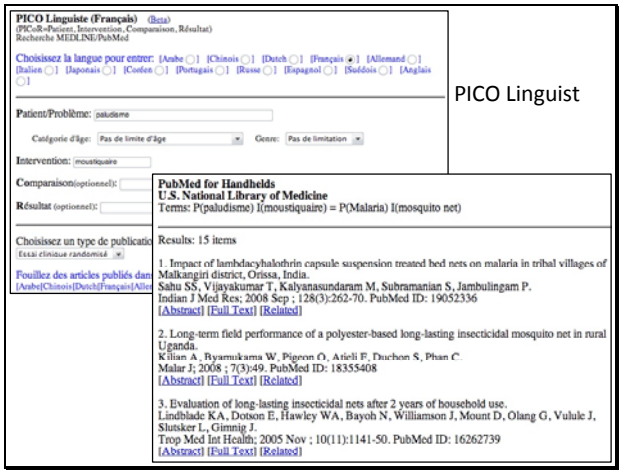
BMJ 2008,337:a2459



PICO with Google Translate



BabelMeSH



PICO Linguist

SMS in medicine

- Appointment reminders
- Monitoring chronic illnesses (asthma, diabetes, CHF)
- Health messages
- Medication reminders, monitoring - DOTS,AIDS
- Laboratory test results - Chlamydia
- Consultation, telemedicine
- Disease monitoring, alerts (SARS, avian flu)

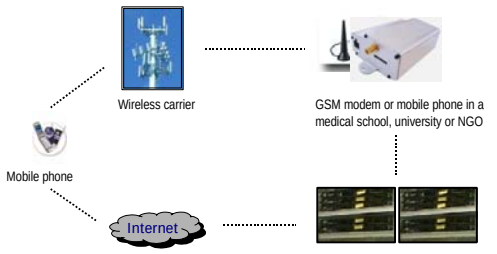
BMJ 10 December 2008 BMJ 2008;337:a2958

The TBL provides the 'bottom line information' of the abstract:
Strongly agree ○5 ○4 ○3 ○2 ○1 Strongly disagree

(n=329)

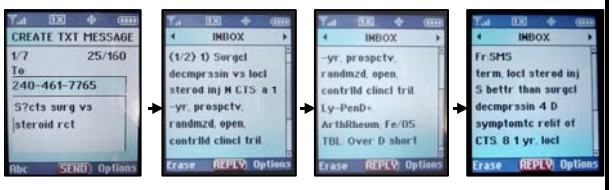
Do computer-generated summaries, "The Bottom Line (TBL)" accurately reflect published journal abstracts?
Tom O, Fontelo P, Liu F. AMIA Annu Symp Proc; 2007 ;1135. PMID: 18694232.

txt2MEDLINE architecture

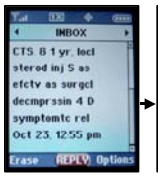


Outbound SMS

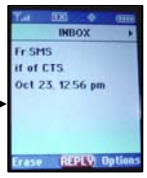
Inbound SMS 1/2

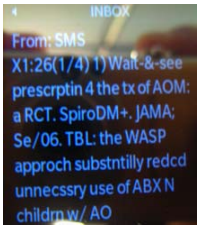


1/2



2/2





Part IV: Value and Specific Outcomes for the Library & Librarian

Value and Specific Outcomes for the Library and Librarian

- Find out more about your mobile users
- Understand user needs
- Assess library resources
- Review results
- Handheld Librarian Conference

Mobile Users – Who Are They?

- 56% of adult Americans have accessed the internet by wireless means (Pew Internet & American Life survey, 2009)
- One-fifth (19%) of Americans use the internet on a mobile device (Pew Internet & American Life survey, 2009)
- 39% of adult population in US is identified as "Motivated by Mobility" and express "positive and improving attitudes" about mobile access (Pew Internet & American Life survey, 2009)

Mobile Users in the Health Sciences Context

- 64% of physicians use mobile devices (Manhattan Research, 2009)
- Estimated 70% will adopt mobile devices by 2011 (Diffusion Group, 2009)
- Number of physicians using iPhones doubled between 2008 and 2009
- Nurses and Health Professions increase in available mobile software options
- Students – class or university required mobile devices
- Electronic Health Record

Getting Started

- Asking the important questions
  - Why go mobile?
  - Who are your mobile users?
  - Which mobile platforms should the library support?
  - What type of information do your library users need access to on a mobile device?
  - Who can help manage mobile site or application?
  - Are there ways to create a site or application for less?

Return on Investment

- Evaluate your results
  - Promote your mobility
  - Work with your institution
  - Happy users v stressed staff
  - Keep statistics
    - Page views
    - Mobile site hits
    - Track downloads from your site
    - Questions from users

More than Hip

- Emerging technology
  - Impacts the way we live
  - Represents cutting edge change
  - Adopted for advantage
- Handheld Librarian Conference
  - http://www.handheldlibrarian.org/
  - Over 2,000 people attended first HLC

Part V: Funding Opportunities (Max Anderson)

Government-Level Funding

- American Recovery and Reinvestment Act of 2009
  - $147.7 billion allocated to healthcare
  - $19 billion allocated for health information technology (HIT)

Government-Level Funding

- BTOP and BIP
  - BIP: Department of Agriculture 's Rural Utilities Service Broadband Initiatives Program
  - BTOP: Department of Commerce's National Telecommunications Information Administration Broadband Technology Opportunities Program
  - ARRA appropriated $7.2 billion towards these programs

Government-Level Funding

- Health Information Technology for Economic and Clinical Health (HITECH) Act
  - Financial incentives through Medicare and Medicaid programs to use EHRs
  - Physicians will be eligible for $40,000 - $65,000
  - Hospitals will be eligible for $millions
- U.S. Dept of Health and Human Services (HHS)

Partnerships

- GE – "Stimulus Simplicity" program
  - No-interest loans to help doctors and hospitals in deploying e-health record systems
- Universal Service Administrative Company (USAC) – Rural Health Care Program
- National Center for Public Health Informatics (CDC)
- Alzheimer's Association
  - Everyday Technologies for Alzheimer Care Grants

Foundations

- John D. Rockefeller Foundation
  - Partners with the United Nations Foundation
  - Funding mobile healthcare projects in the developing world

Foundations

- Vodafone Americas Foundation – Wireless Innovation Project
  - http://www.project.vodafone-us.com/
  - Seeking to identify and fund the best innovations using wireless related technology to address critical social issues including health
  - Up to $600,000 in awards to support various projects

Foundations

- Verizon Foundation
  - $25,000 grant to expand the Center for Connected Health's text messaging program
  - Aimed at at-risk pregnant women

Where to find funding?

- Office for Extramural Research
  - http://grants.nih.gov/grants/oer.htm
- Grants.gov
  - http://www.grants.gov/
- Foundation Center
  - http://foundationcenter.org/
- Bringing Health Information to the Community (BHIC)
  - http://nnlm.gov/mcr/bhic/

Where to find funding?

- National Science Foundation, NSF
  - http://nsf.gov/index.jsp
- ScanGrants
  - http://www.scangrants.com/

Past Funding – Unique Examples

- $100,000 grant to a Princeton University undergraduate to write an iPhone app
  - App will help diabetics manage food consumption, blood sugar, insulin intake
- NY Governor announces $60 million in new funding for Health Information Technology (HIT) Projects
- Hewlett Technology for Community Grant Initiative

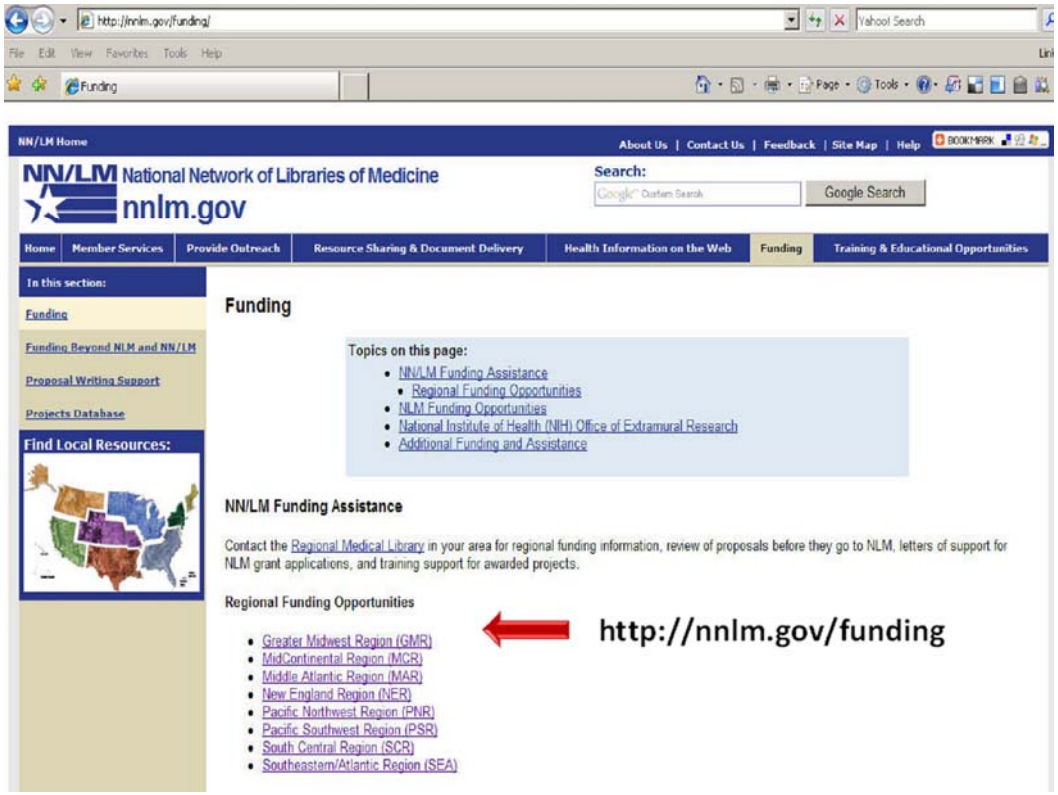
The Zero Budget

- Make your website mobile-enabled
- Wordpressplugins
  - Mowser
  - MobilePress
- Joomla
  - PDA for Jooma
- Drupal
  - Accessibility Plug in

The Zero Budget

- Mippin
- Google's Conversion Utility
- MobiSite Galore
- Mobify
- Usablenet

Part V Continued: RML Funding (Renee Bougard)



Speaker Favorites

The speakers developed the following list of selected materials.

Max Anderson

Books

- Agar, John. 2005. Constant touch: A global history of the mobile phone. Totem Books.
- Dubendorf, Vern A. 2003. Wireless Data Technologies. John Wiley & Sons, Ltd.

Websites

- http://www.wired.com/gadgets/gadgetreviews/multimedia/2009/02/gallery_cell_phone_history

  - Gallery: From Brick to Slick: A History of Mobile Phones
- http://www.healthcaregoesmobile.com/ - Healthcare Goes Mobile
- http://gadgetcrave.com/history-of-mobile-phones-10-phones-that-defined-a-technology/377/

  - Brick Phone to iPhone: 10 Phones that Defined Mobile Living
- http://www.thepeoplehistory.com/mobilephones.html - How Mobile Phones Have Changed
- http://wirelesshistory.org/ - History of Wireless Communication

Bib for Part V

Funding

- http://www.scangrants.com/ - ScanGrants
- http://grants.nih.gov/grants/oer.htm - HHS Office of Extramural Research
- http://www.project.vodafone-us.com/ - Vodaphone Americas Foundation Wireless Innovation Project
- http://www.grants.gov/ - Grants.gov
- http://foundationcenter.org/ - Foundation Center
- http://nnlm.gov/mcr/bhic/ - Bringing Health Information to the Community
- http://nsf.gov/index.jsp - National Science Foundation
- http://www.cdc.gov/ncphi/programs-projects.html - National Center for Public Health Informatics (CDC)

Mobile Conversion for Websites

- http://www.mippin.com/ - Mippin
- http://www.google.com/gwt/n - Google's Conversion Utility
- http://www.mobisitegalore.com/index.html - MobiSite Galore
- http://www.freemobiz.com/ - FreeMobiz
- http://mobify.me/ - Mobify
- http://www.usablenet.com/ - UsableNet

Emily Hurst

Websites

- http://www.handheldlibrarian.org/ - Handheld Library Conference Information
- http://www.handheldlib.blogspot.com/ - Helpful information and tidbits about libraries and handheld devices
- http://web.simmons.edu/~fox/pda/ - Mobile Technologies in Libraries: How the academic library is using pda's, handhelds and other mobile technologies
- http://www.pewinternet.org/ - Pew Internet and American Life survey project - Great place for statistics on mobile usage.

Articles

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- Tempelhof, M. W. (2009). Personal digital assistants: A review of current and potential utilization among medical residents. *Teaching and Learning in Medicine*, 21(2), 100-104.

Bart Ragon

- http://davidrothman.net/2009/10/09/harvard-medical-schools-hms-mobile-iphone-apps-for-public-health/ - iPhone Apps for Public Health
- http://www.softsailor.com/news/8610-apple-tablet-microsoft-courier-crunchpad-coming-soon-but-where.html - Apple Tablet, Microsoft Courier, CrunchPad Coming Soon, But Where?
- http://gizmodo.com/5365299/courier-first-details-of-microsofts-secret-tablet - Courier: First Details of Microsoft's Secret Tablet - Microsoft courier tablet
- http://www.readwriteweb.com/archives/admob_reports_on_mobile_webs_explosive_growth.php - Mobile Web's Explosive Growth
- http://www.informationweek.com/news/healthcare/leadership/showArticle.jhtml;jsessionid=ZARFYVC5GHNLXQE1GHPSKHWATMY32JVN?articleID=220900375&pgno=2&queryText=&isPrev = - Top iPhone Apps For Health Pros, Patients
- http://ebn.bmj.com/cgi/reprint/12/2/35 - The emerging role of PDAs in information use and clinical decision making

- http://kenleyneufeld.com/2009/02/11/top-10-iphone-apps-for-librarians/ - Top 10 iPhone Apps for Librarians
- http://www.goomedic.com/12-iphone-emr-phr-and-patient-trackers-applications.html - 12 iPhone : EMR , PHR and Patient Trackers applications
- http://www.cnn.com/2009/HEALTH/10/14/iphone.virtual.dissection/index.html?eref=rss_tech - How to dissect a body on your iPhone
- http://www.slideshare.net/ericschnell/m-health-sciences-libraries - M Health Sciences Libraries
- http://blog.ericlamb.net/2009/04/developing-web-sites-for-blackberry/ - Developing Web Sites for Blackberry
- http://articles.sitepoint.com/article/iphone-development-12-tips - iPhone Development: 12 Tips To Get You Started

David Rothman

PubMed

- http://pubmedhh.nlm.nih.gov/nlmd/pubmed/index.html - PubMed for Handhelds
- http://pubget.com/mobile - PubGet Mobile
- http://referencesontap.com/) - PubMedOnTap ($2.99 for full version)
  Lite version only returns top 5 search results
- http://www.deathraypizza.com/deathraypizza/iPhone.html - PubSearch
- http://m.bookmarc.com/pm/#home - Mobile PubMed

General

- http://www.instapaper.com/ - InstaPaper ($4.99 for full version)
- http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=284881860&mt=8 - NetNewsWire
- http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=284956128&mt=8 - Stanza (eBook Reader)
- http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=327630330&mt=8 - Dropbox
- http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=281796108&mt=8 - Evernote

Other Health Apps

- http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=321367289&mt=8 - Medscape
- http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=295076329&mt=8 - WebMD
- http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewSoftware?id=306402834&mt=8 - Diagnosaurus

Recommended reading

- http://www.teleread.org/ - eBooks

Eric Schnell

- http://www.netbookreviews.com/
- http://www.pcmag.com/article2/0,2817,2334960,00.asp
- http://reviews.cnet.com/laptop-reviews/?filter=1101502_17294757_&tag=resourc eRightContainer.0
- http://www.library.drexel.edu/blogs/librarylog/?p=1289
- http://library.drake.edu/pages/netbooks-how-check-them-out
- http://www.libraryng.com/node/1706

Megan von Isenburg

- http://kindledlibrary.wetpaint.com/ - The Kindled Library

Paul Fontelo

- Can journal abstracts alone be used for clinical decision making? Fontelo P, Marcelo A. http://www.bmj.com/cgi/eletters/337/dec29_1/a3123#215071
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- Mobile devices in health education: current use and practice. Ducut E, Fontelo P. Journal of Computing in Higher Education November 2008; 20:2, 59-68.
- Do Computer-generated Summaries, "The Bottom Line (TBL)" Accurately Reflect Published Journal Abstracts? Tom O, Fontelo P, Liu F. AMIA Annu Symp Proc; 2007;1135. PubMed ID:18694232
- Bringing the Medical Library Where Needed – at the Point of Care. Fontelo P, Liu F. Technical Reports Sep 2008. http://lhncbc.nlm.nih.gov/lhc/docs/reports/2008/tr2008003.pdf
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Fax:	312.419.8950
Email:	mlapd3@mlahq.org

Email discussion list
To subscribe, go to: http://ns1.mlahq.org/mailman/listinfo/mla-mobile
To participate: mla-mobile@mlahq.org

Speakers

Please feel free to contact any of the webcast speakers via email.

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